

REMARKS

Claim 1-26 are pending. Claims 2-9 and 11-26 were withdrawn in response to a species restriction. Claim 1 was identified as generic. Claims 1 and 10 directed to the elected species have been rejected. No claims have been allowed.

Summary of Telephonic Examiner Interview

At 3:30 pm (pacific time) on August 4, 2004, Attorney for Applicant placed a call to schedule a telephonic interview with Examiner Williams. The Examiner agreed to discuss the issues immediately. Three issues were discussed. First, the acknowledgement of papers submitted under 35 U.S.C. 119 (a)-(d). Second, the need to provide a corrected drawing for Fig. 14. Third, the 112 rejection as applied to claim 1 and 10.

Applicant's Attorney had no record of submitting papers under 35 U.S.C. 119(a)-(d). The Examiner confirmed that the record did not show any papers being submitted and that the acknowledgement could be disregarded.

Applicant had previously made the requested correction to Fig. 14, and submitted it as part of Attachment B to the Petition to Withdraw Holding of Abandonment. The Examiner indicated that the correct drawing did not appear to be of record in the file. Applicant's Attorney agreed to send a corrected Fig. 14 as requested in the Office Action dated May 7, 2004.

Finally, Applicant's Attorney and Examiner Williams discussed the 35 U.S.C. § 112, second paragraph, rejection of claims 1 and 10. The office action stated, "In claim 1, it is unclear and confusing to what is meant by 'wherein the second two dimensional array has a second pitch defined by the sum of the second distance across each shape and the second distance between adjacent shapes.' What shows this?" Applicant's Attorney referred to Figs. 2, 3, 13 and 14 by way of illustration, and clarified that the term second was a generic reference used to

distinguish certain features from those identified by the term first. By way of illustration, if Fig. 2 shows a first array with a first pitch (P_{ref}), defined by the first distance (L_{ref}), and the first space (S_{ref}), then Fig. 3 would show a second array with a second pitch (P), defined by the second distance (L), and the second space (S). Alternatively, Fig. 3 could correspond to the first array, and Fig. 2 could correspond to the second array, as the designations "first" and "second" are arbitrary. Figs. 13 and 14 show two arrays with different pitches, similar to those shown separately in Fig. 2 and Fig. 3, overlaid to illustrate various states of alignment of the x/y vernier. With regard to Fig. 10, the rejection stated, "In claim 10, it is unclear and confusing to what is meant by 'first two dimension array of spaced shapes is a light field pattern.' What shows this?" Applicant's Attorney again referred to Figs. 2, 3, 13 and 14, by way of illustration, and pointed out that these figures show at least one array with a dark pattern of shapes formed on a light background, or field. Figs. 13 and 14 show two light field patterns overlaid over each other. Following this discussion, the Examiner indicated that these clarifications should be made of record in the response.

The rejection under 35 U.S.C. §102 was not discussed.

Response to Office Action

Changes to the drawings have been made as described above.

Claims 1 and 10 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards has the invention.

Applicants refer to the summary of the interview above, which addresses these rejections. Furthermore, with regard to claim 1, the specification at pages 7-8 discusses the two pitches with regard to Figs. 2 and 3. Furthermore, with regard to claim 10, the brief description of the drawings identify Fig. 2 and Fig. 3 containing "a plan view of a reference layer with a light field" and "a plan

view of an active layer light field,” respectively. Page 8, line 23 through page 9, line 9 provide additional clarification of the phrase “light field”.

Claims 1 and 10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cohen (U.S. Patent # 6,027,630). Figs. 4a to 5e do not show a first two dimensional array having a pitch. “Referring to Fig. 4, a method of forming an electroplating article is shown” (Col. 10, lines 11-12)

Alternatively, “Mask 156 exhibits a pattern inverse to that of micromold 140.” If the first pattern is the inverse of the second pattern, there is no disclosure that the two patterns have different pitches. (Col 10, lines 52-53).

Column 18, lines 27-33 state, “Another example of a useful alignment method employs a vernier pattern in which a pattern of **fine lines** having a first pitch is deposited over a second pattern of **lines** having a different pitch. The pitch spacing of the deposited pattern compared to the existing pattern provides an indication of alignment error.” (emphasis added). There is no mention of a two-dimensional array of shapes, but rather lines. This paragraph apparently corresponds to the prior art vernier shown in Fig. 1, and not the vernier pattern of claims 1 and 10.


Cohen fails to teach every element of claim 1, or claim 10, as arranged in the claims. Claims 1 and 10 are not anticipate by Cohen.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If generic claim 1 is allowed, applicant respectfully requests that dependent claims 2-9 and 11-12, which are drawn to non-elected species and depend from generic claim 1, be reinstated and allowed.

Applicant hereby authorizes any necessary charges associated with this office action to be charged to deposit account number 19-1457.

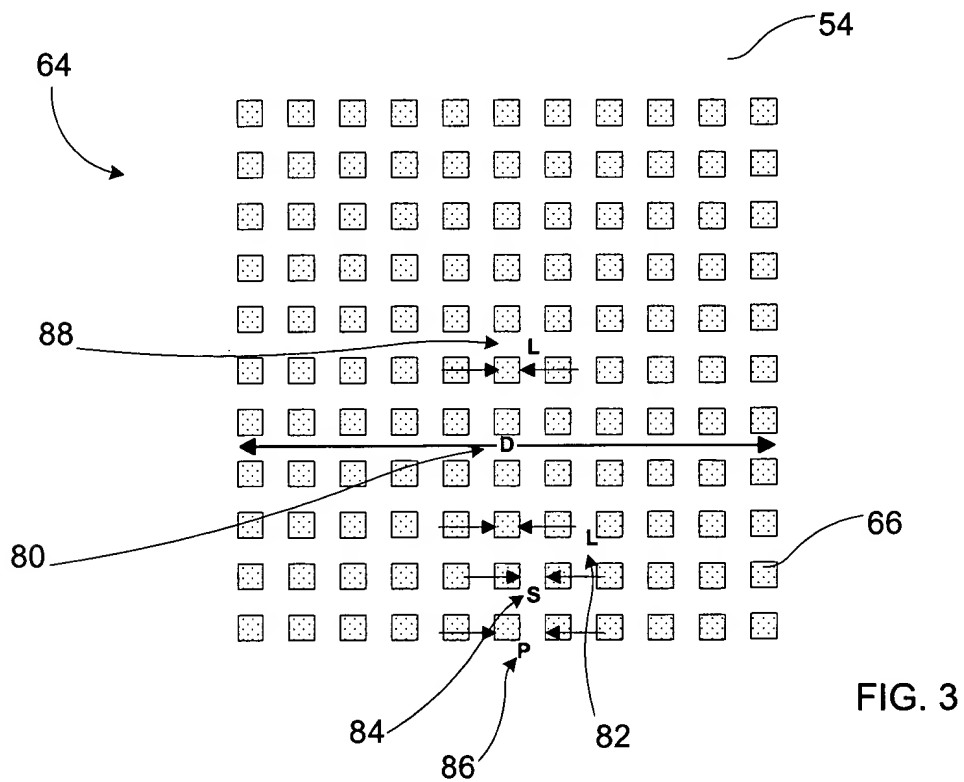
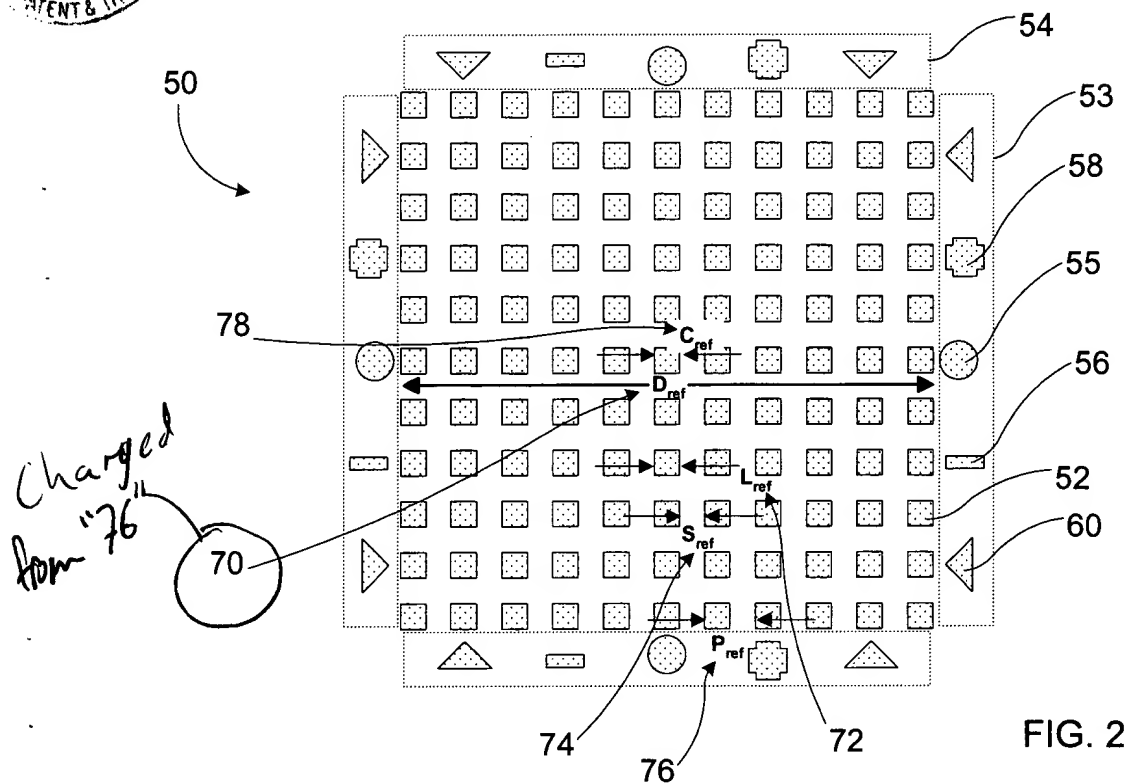
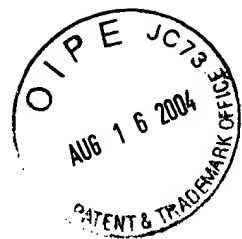
Respectfully submitted,

Date: Aug. 9, 2004

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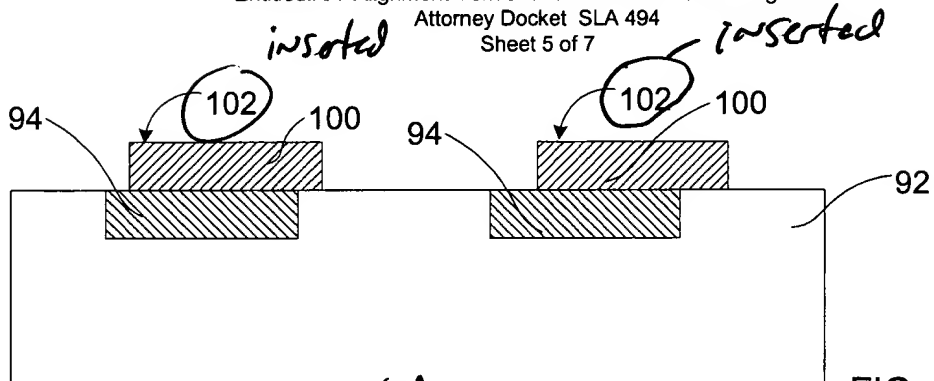


FIG. 9

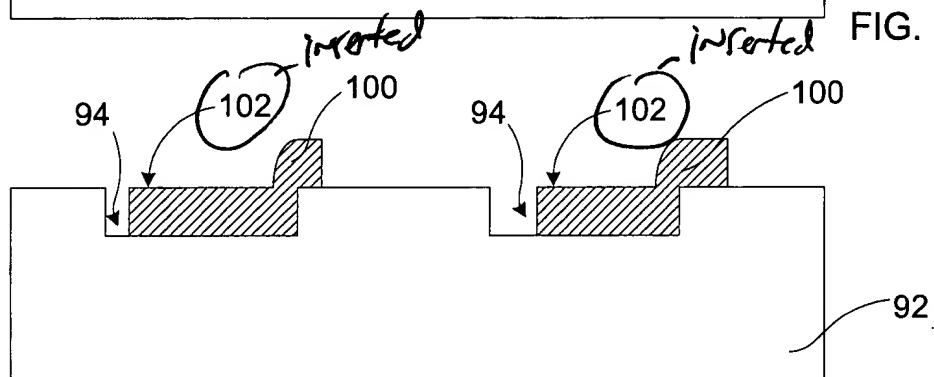


FIG. 10

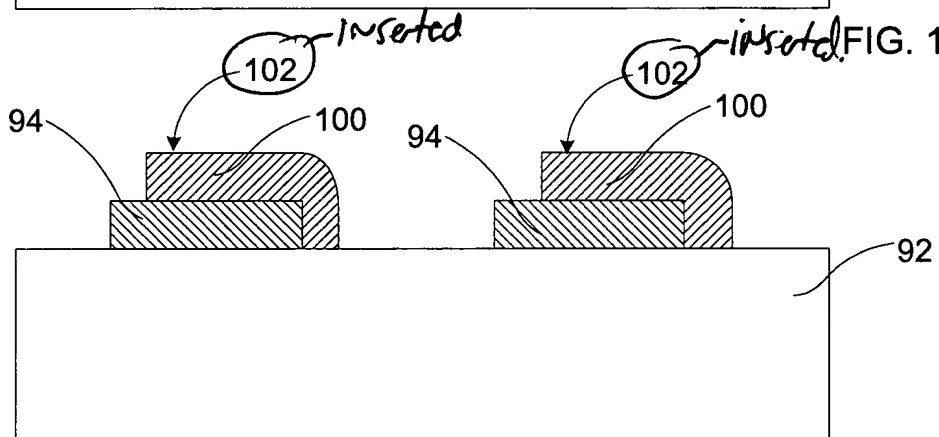


FIG. 11

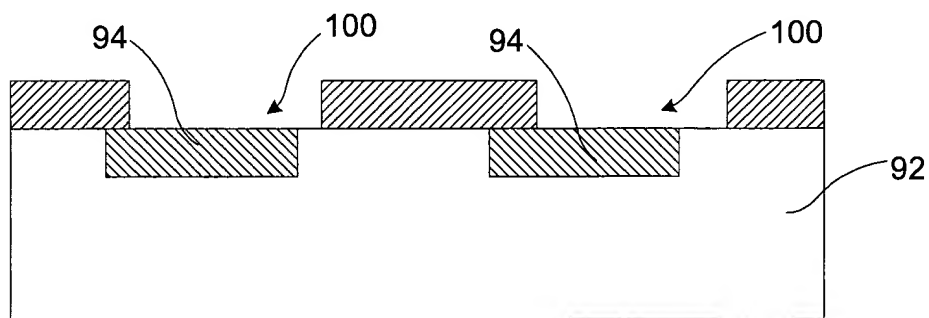


FIG. 12



In Re: Patent Application of Bruce D. Ulrich
Entitled: X/Y Alignment Vernier and Method of Fabricating Same
Attorney Docket SLA 494
Sheet 7 of 7

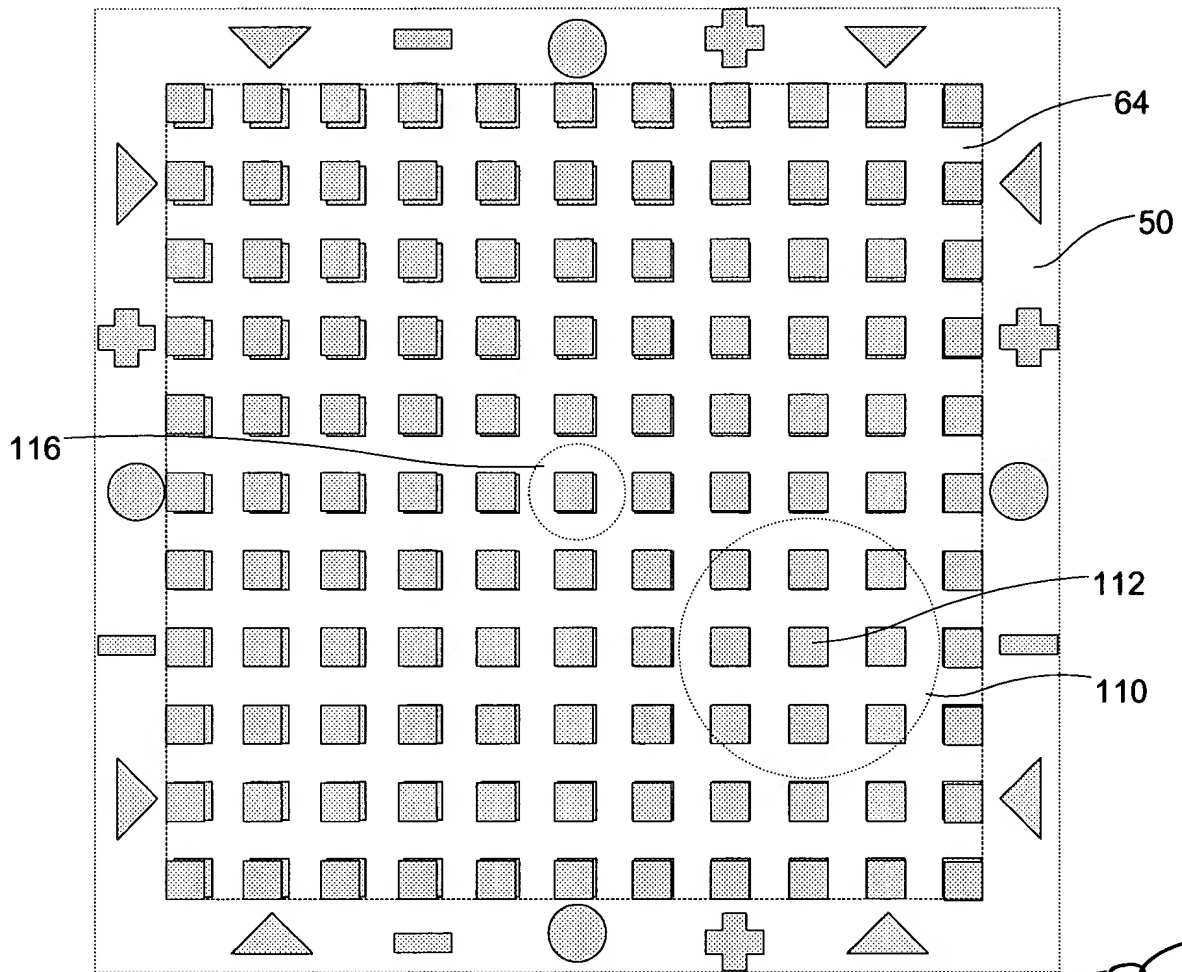


FIG. 14

changed
to "14"